

Malaysia Oil & Gas

POSITIVE

[Unchanged]

PETRONAS Activity Outlook (PAO) 2022-24

5th edition - A steady 2022, a steadier 2023-24

PETRONAS revealed a mixed performance (plan vs. actual) in 2021. Its latest PAO edition reflects a cautious, optimistic outlook for 2022 but an improving positivity in 2023-24, based on the level of activities planned. In this latest edition, its energy transition outlook is gaining traction, with greater emphasis on hydrogen. We remain POSITIVE on the sector. Velesto, Icon, Wah Seong, MMHE & Dialog are beneficiaries of the PAO play. Yinson remains our key pick for the global FPSO play.

PAO 2021 report card - in retrospect

Activity-wise, PETRONAS had a mixed performance in 2021. The OSV, hook-up & commissioning (HUC) equipment & material (supply of line pipes) and underwater services segments outperformed during the year while the offshore drilling, pipeline installation, decommissioning, offshore maintenance, construction and modification (OCM) ops were the underperformers. Meanwhile, the offshore fabrication, floaters (FPSOs/ FSO, MOPUs), subsea structures, offshore installation and general facilities maintenance (plant turnaround) ops met expectation.

Potential beneficiaries in PAO 2022-24

Under the PAO 2022-24, PETRONAS in general, remains cautiously optimistic for 2022, with a relatively similar YoY expectation vis-à-vis 2021. It is however more positive in 2023-24. That said, we see Velesto, Icon, MMHE, Wah Seong and Dialog as key beneficiaries of PETRONAS' domestic activities over the next 3 years. Segment-wise, Icon/ Velesto remain the best proxies to its drilling programs. MMHE/ Wah Seong/ Dialog are key beneficiaries of the fabrication/ pipe-coating/ maintenance works. Icon is a key feature for an exposure to the OSV space.

Reiterate POSITIVE, setting green targets

Our in-house oil price (dated Brent) estimate remains unchanged, at USD75-80/bbl for 2022. Should oil price continue to be strong throughout 2022 and surpass our oil price target, we do not rule out increased activities/ capex from 2H onwards. That said, capital remains key, for the higher oil price has led to higher costs and greater volatility, a setback and a concern to a sustainable recovery in the market. Based on its 5-year capex plan of MYR200b-MYR225b (average: MYR40b-45b p.a.) in 2021-25, PETRONAS has stated that 9% of the overall capex will be for its green energy agenda. Among its climate goals include commitment to be net zero carbon emissions (NZCE) by 2050 and zero routine flaring by 2030 (targeting its 1st disclosure in 2023).

Stock	Bloomberg code	Mkt cap (USD'm)	Rating	Price (LC)	TP (LC)	Upside (%)	P/E (x)		P/B (x)		Div yld (%)	
							21E	22E	21E	22E	21E	22E
Dialog Group	DLG MK	3,551	Buy	2.62	4.90	87	29.9	24.6	3.2	2.7	1.1	1.2
Yinson Holdings	YNS MK	1,584	Buy	6.00	11.15	86	11.8	14.2	3.0	2.9	1.2	1.0
Bumi Armada	BAB MK	666	Buy	0.47	0.58	23	3.9	3.8	0.7	0.6	0.0	0.0
Velesto Energy	VEB MK	237	Buy	0.12	0.23	92	nm	nm	0.5	0.5	0.0	0.0
Sapura Energy	SAPE MK	192	Sell	0.05	0.03	(40)	nm	nm	0.2	0.1	0.0	0.0
MMHE	MMHE MK	152	Buy	0.40	0.85	115	nm	8.7	0.4	0.3	0.0	0.0
Favelle Favco	FFB MK	130	Hold	2.41	2.40	(0)	11.6	9.0	0.7	0.7	4.6	6.2
Wah Seong	WSC MK	123	Buy	0.66	1.20	82	nm	5.6	0.7	0.6	0.0	0.0
Icon Offshore	ICON MK	68	Buy	0.11	0.16	52	8.3	5.1	0.6	0.6	0.0	0.0

PETRONAS Activity Outlook (PAO): '2022-24': By segment

(i) Offshore drilling

	PAO 2022-24			Planned	Actual
	2022	2023	2024	2021	
Jackup rigs (JUs)	9	9	16	10	9
Tender-assisted (TADRs)	4	4	3	4	3
Hydraulic workover (HWUs)	6	7	6	5	3
Semi-submersible	3	4	4	3	1
	=====	=====	=====	=====	=====
Total	22	24	29	22	16

Source: PETRONAS

Our views:

Jackup rigs (JUs)

- **Underperformed in 2021.** PETRONAS did not meet its drilling activities planned for 2021. This is not entirely unexpected, for it remained cautious in offshore spending amidst the exuberant yet volatile oil market during the year.
- **Targets 9 JUs in 2022.** Under PAO 2022-24, PETRONAS requires 9 JUs in 2022. We see this as a relatively base case for MY's drilling JUs operations, similar to its 2021's requirement.
- **Higher targets for 2023-24.** This is especially so for the JUs market, which will see a significant 78% jump in requirement to 16 units in 2024, from 9 units p.a. in 2022-23.
- **Icon Offshore (ICON MK; BUY; TP: MYR0.16) and Velesto (VEB; BUY; TP: MYR0.23)** are key beneficiaries of PETRONAS' JUs drilling activities in Malaysia. Icon has one JU while Velesto has six.

We posit that both should realize higher overall utilization in 2022. Also, higher daily charter rates (DCRs) and longer tenures outlook is not entirely ruled out should global utilization surpass 80% this year.

Tender-assisted rigs (TADRs)

- **Did not meet target in 2021.** PETRONAS used 3 units (vs. 4 as per earlier planned).
- **Targets 4 TADRs in 2022.** Under PAO 2022-24, PETRONAS targets 4, 4, 3 HWUs, relatively flat and consistent with its domestic's requirements as per previous PAO (2021-23).
- **SAPURA ENERGY (SAPE MK; SELL; TP: MYR0.05)** operates in this space. That said, it will continue to suffer from low utilization in 2022 due to its: (i) over-supplied and ageing assets as well as (ii) limited demand issues.

Hydraulic workover units (HWUs)

- **Below target in 2021.** PETRONAS used 3 HWUs in 2021 (60% of its planned target of 5 units).
- **Targets 6 HWUs in 2022.** **Velesto (VEB; BUY; TP: MYR0.23)** is a key player in this space.

Semi-submersibles (Semis)

January 3, 2022

- **Did not meet target in 2021.** PETRONAS only engaged 1 semi in 2021 (vs. 3 planned). Expects to use 3 semis in 2022. No Malaysia O&G player is in this space.

(ii) Offshore fabrication

	PAO 2022-24			Planned 2021	Actual 2021
	2022	2023	2024		
Offshore fabrication (by size)	5	2-13	5-13	7	6
<u>Light (<1k MT)</u>				1	1
- Low case	2	0	2		
- High case	2	11	6		
<u>Medium (1k - <7.5k MT)</u>				5	4
- Low case	2	1	2		
- High case	2	1	6		
<u>Heavy (>7.5k MT)</u>				1	1
- Low case	1	1	1		
- High case	1	1	1		

Source: PETRONAS

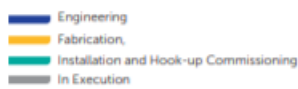
Our views:

- **Relatively met target for 2021.** 6 projects (1x light, 4x medium, 1x heavy structures) were carried out during the year vs. the planned 7. (pls. refer to table above).
- **5 structures planned for 2022.** This comprises of 2 light (<1k MT), 2 medium (1-7.5k MT) and 1 heavy (>7.5k MT) structures.
- **More activities planned for 2023-24, based on the latest PAO.** Up to 13 structures p.a. are expected with 1 CPP planned for 2024.
- **MMHE (MMHE MK; BUY; TP: MYR0.85)** is likely to benefit from this development over its peers, such as **SAPE (SAPE MK; SELL; TP: MYR0.05)** due to its track record, capacity and engineering capability to take up more jobs.
Other PETRONAS-licensed fabricators, such as **Muhibbah Engineering (MUHI MK; Not Rated)** and Sarawak-based **KKB Engineering (KKB MK; Not Rated)** are also potential beneficiaries for the PETRONAS fixed structures play.
- **Need to be competitive and eye overseas jobs.** That said, there is a pressing need for domestic players to prospect for jobs overseas, and not be entirely dependent on local projects.

Upstream greenfield development projects



¹At the time of reporting, high number of projects are still under review

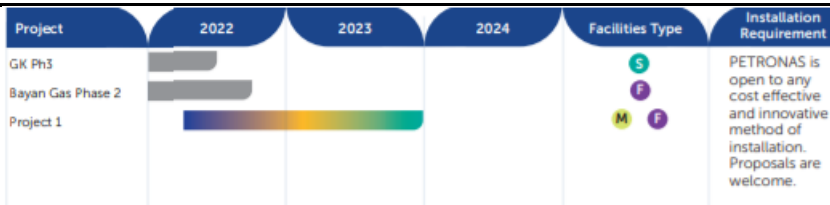


Legend for Facilities Type:

- Fixed structure:
 - L WHP Lightweight – total tonnage ≤ 1,000 tonnes
 - M WHP Medium Weight – total tonnage ≤ 7,500 tonnes
 - H WHP Heavy Weight – total tonnage > 7,500 tonnes
 - C CPP Heavy Weight – total tonnage > 7,500 tonnes
- Floating structure:
 - F Floaters – Floating Production Storage and Offloading (FPSO) / Floating Storage and Offloading (FSO) / Mobile Operating Production Unit (MOPU)
- Subsea structure:
 - S Subsea – Subsea Production System and Subsea Umbilical, Riser Flowline (SURF)

Source: PETRONAS

Upstream brownfield development projects



²At the time of reporting, higher number of the projects are still under review



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Source: PETRONAS

(iii) Floating structures fabrication

	PAO 2022-24			Planned 2021	Actual 2021
	2022	2023	2024		
FPSO/ FSO	1	1	0-1	0	0
- Low case	1	1	0		
- High case	1	1	1		
MOPU	0	0-1	0	0	0
- Low case	0	0	0		
- High case	0	1	0		

Source: PETRONAS

Our views:

- **An uneventful 2021.** No project was forthcoming in 2021. The much talked about FPSO Limbayong tender continued to see deferment for various reasons.
- **Improved visibility for 2022-24.** 3 FPSO are planned for 2022-24 (1 units p.a.) while there is a need to 1 MOPU (touted to be for the North Sabah field) in 2023.

Globally, the FPSO market is seeing a strong pick-up from 2021 due to the recovery in global capex cycle, on the back of stronger oil market outlook and the stronger push for lower carbon emissions assets in lieu of the energy transition agenda.

- **The re-tender of the Aframax-sized Limbayong FPSO is again targeted for award in 2022.** We understand that 2 PLCs, namely **MISC (MISC MK; BUY; MYR7.75)** and **Bumi Armada (BAB MK; BUY; TP: MYR0.58)** are among the bidders for this job.

We understand that **Yinson (YNS MK; BUY; TP: MYR11.15)** is not putting in a bid for this, as it focuses on overseas projects, which are more certain to be awarded, that comes with high capex values and better returns.

- **A redeployment job for Limbayong?** While the Limbayong job requires an Aframax-size FPSO, we understand that the Nghanhurra FPSO (a Suezmax-size FPSO, a bigger unit) fits this job, specification-wise (storage: 143k m³, 900k barrels, processes 100k bbls of oil/ day).

We posit that a deployment option vs. a conversion method is more cost-effective and offers a faster delivery. Prospective bidders that are able to secure this FPSO will have an advantage over peers.

(iv) Offshore support vessels (OSVs)

OSV - Supports production ops	PAO 2022-24			Planned	Actual
	2022	2023	2024	2021	
- AHTS (<100 MT)	25	26	26	23	31
- Fast crewboat	46	46	47	43	47
- PSV/ SSV	15	14	13	16	14
- Work board	2	3	2	0	2
- GPV/ SBV	28	28	29	30	30
- LCT	13	13	13	12	17
- Utility vessel	9	8	7	7	10
	=====	=====	=====	=====	=====
Total	138	138	137	131	151

Our views (OSV - supports production ops):

- **Outperformed in 2021.** 151 OSVs were chartered in 2021 vs. the planned 131 units, a positive in supporting brownfield activities. These are the producing fields, which enjoyed higher returns as a result of stronger oil price in 2021.
- **The improved strength came notably in the AHTS (<100 MT) segment,** wherein most of domestic OSV operators, such as **Icon Offshore (ICON MK; BUY; TP: MYR0.16)** operate.

OSVs - Supports drilling projects	PAO 2022-24			Planned	Actual
	2022	2023	2024	2021	
- AHTS (<100 MT)	32	35	31	30	16
- AHTS (>100 MT)	57	52	52	48	43
- Fast crewboat	19	21	16	16	15
- PSV/ SSV	42	31	30	39	34
- Work boat/ work barge	38	39	34	30	23
- GPV/ SBV	3	3	4	2	1
- LCT	5	5	5	7	6
- Utility vessel	2	1	0	0	0
	=====	=====	=====	=====	=====
Total	198	187	172	172	138

Source: PETRONAS

Our views (OSV - supports drilling ops):

- **Underperformed in 2021.** Only met 80% of its objective in 2021, for only 138 OSVs was chartered in the year (vs. the planned 172 units).
- **Consistent with the lower drilling activities.** This is not a surprise, for these assets are directly tied to the drilling activities during the year. Only 16 drilling units were chartered in 2021 (vs. the planned 22 units), meeting just 73% of its expectation.
- **Improved optimism in 2023-24.** Based on PAO 2022-24, PETRONAS requires substantially higher 198 / 187 OSVs in 2022/ 23 respectively. The increased requirement would come mainly from the AHTS, fast crew boat, PSVs/ SSVs and workboats/ barges segments respectively.

- We see **Icon Offshore (ICON MK; BUY; TP: MYR0.16)**, **Alam Maritim (AMRB MK; Not Rated)**, **Dayang Enterprise (DEHB MK; Not Rated)** and **Perdana Petroleum (PETR MK; Not Rated)** as beneficiaries.

(v) Linepipes supply (km)

	PAO 2022-24			Planned 2021	Actual 2021
	2022	2023	2024		
Carbon steel				41	582
- Low case	301	38	159		
- High case	310	147	330		
Corrosion resistant alloy				2	13
- Low case	20	0	0		
- High case	20	0	0		
Flexible				7	12
- Low case	0	43	27		
- High case	0	47	38		
	=====	=====	=====	=====	=====
- Low case	321	81	186	50	607
- High case	330	194	368		

Source: PETRONAS

Our views:

- Above expectation in 2021.** The length of pipes being procured/ fabricated was 12x its original plan. That came notably from the carbon steel pipes (582km vs. 41km initially).
- Improved disclosure in 2021.** Unlike its previous editions, the current PAO reinstated the disclosures of various types of pipes (carbon, CRA and flexible). Only carbon steel's requirement was disclosed previously. Corrosion Resistant Alloy (CRA) pipeline and flexible pipelines were omitted under PAO 2021-23.
- Expectations for 2022-24.**
 - ✓ Demand (carbon steel pipelines) will be around 301-310km in 2022, 38-147km in 2023 and 159-330km for 2024.
 - ✓ Demand for CRA is higher YoY in 2022, at 20km. No target set for 2023-24.
 - ✓ Demand for flexible pipes is around 43-47km in 2023 and 27-38km for 2024.
- Wah Seong (WSC MK; BUY; TP: MYR1.20)** is a major beneficiary, for pipe coating works. It is the sole coater in MY now, following the exit of its peer Bredero Shaw in 2020.

(vi) Plant turnaround

	PAO 2022-24			Planned 2021	Actual 2021
	2022	2023	2024		
- PM, >350k man-hrs	2	2	2	2	1
- SB/SK, >350k man-hrs	3	1	1	3	5
- PM, <=350k man-hrs	1	1	3	2	2
- SB/SK, <=350k man-hrs	1	0	0	3	1
- PM, <=100k man-hrs	3	5	3	0	0
- SB/SK, <=100k man-hrs	1	0	0	1	1
	=====	=====	=====	=====	=====
Total	11	9	9	11	10

Source: PETRONAS

Our views:

- **Relatively met target for 2021.** One turnaround was deferred to 2022.
- **Slight improvement for 2022.** The outlook represents the number of PETRONAS Operating Units (OPUs) to perform turnaround and excludes: (i) plants not operated by PETRONAS and (ii) Pengerang Refining and Petrochemical (PRefChem) respectively.
- **Dialog (DLG MK; BUY; TP: MYR4.90)** is a key beneficiary.

Others**(vii) Subsea structures**

Subsea structures	PAO 2022-24			Planned 2021	Actual 2021
	2022	2023	2024		
<u>SURF (no. of projects)</u>	1	2-5	0-3	1	1
- Base case	1	2	0		
- High case	1	5	3		

Source: PETRONAS

(viii) Offshore installation

	PAO 2022-24			Planned 2021	Actual 2021
	2022	2023	2024		
<u>No. of lifts using heavy lift barges</u>	11	8	4-24	1	1
- Base case	11	8	4		
- High case	11	8	24		

Source: PETRONAS

(ix) Offshore installation - using floatover barges

(No. of installation)	PAO 2022-24			Planned 2021	Actual 2021
	2022	2023	2024		
- Base case	1	1	0	1	1
- High case	1	1	0	1	1

Source: PETRONAS

(x) Pipeline installation - pipelay

(No. of installation days)	PAO 2022-24			Planned 2021	Actual 2021
	2022	2023	2024		
- Base case	240	189	344	64	56
- High case	240	189	539	64	56

Source: PETRONAS

(xi) Hook-up and commissioning

(No. of man-hours; millions)	PAO 2022-24			Planned 2021	Actual 2021
	2022	2023	2024		
- Base case	6.3	4.5	2.9	4.4	4.7
- High case	6.6	5.4	4.1	4.6	4.7

Source: PETRONAS

(xii) Decommissioning

(No. of wells)	PAO 2022-24			Planned 2021	Actual 2021
	2022	2023	2024		
- Wells	31	40	50	23	13
- Pipeline	2	0	3	3	3
- FPSO/ FSO	0	0	1	0	0
- Subsea	0	0	1	0	0
- CPP	0	1	0	0	0
- WHP	2	0	1	0	0

Source: PETRONAS

(xiii) Offshore maintenance, construction & modification

(No. of man-hours; millions)	PAO 2022-24			Planned 2021	Actual 2021
	2022	2023	2021		
- Base case	11.5	11.4	11.8	10.1	8.5

Source: PETRONAS

(xiv) Underwater services

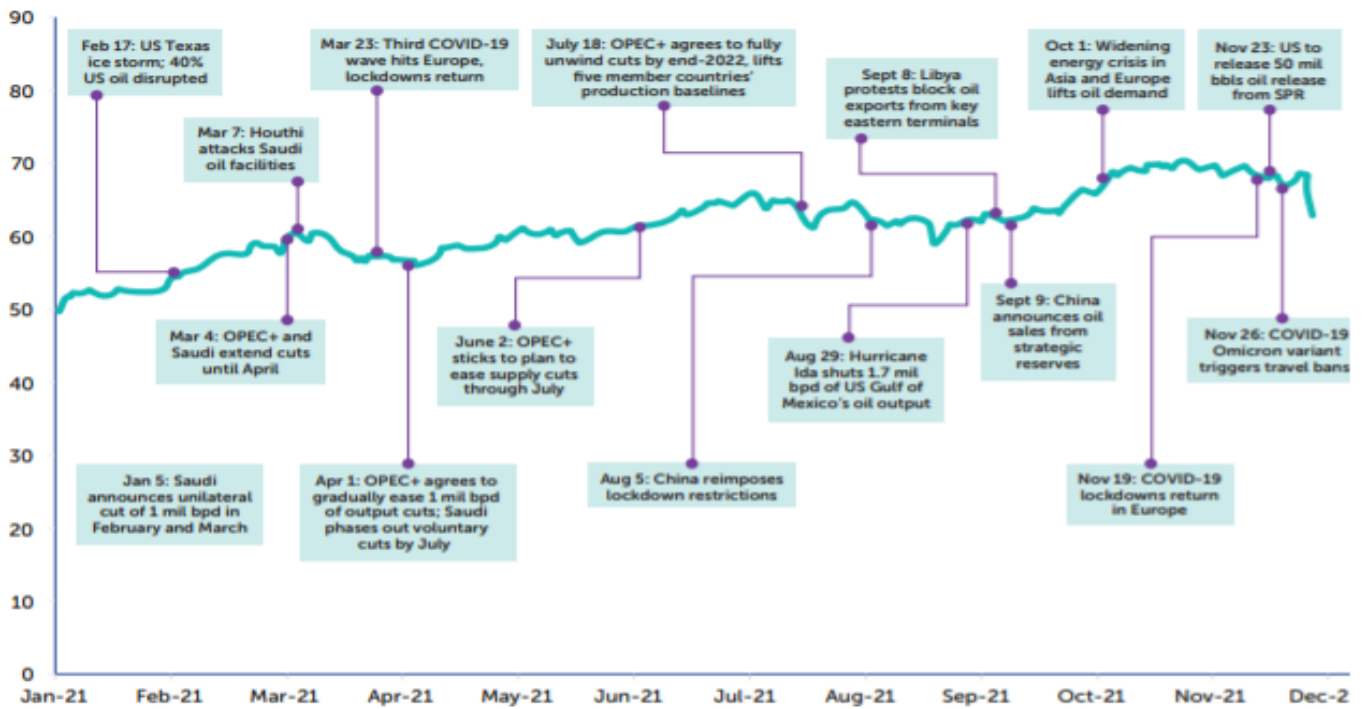
(No. of wells)	PAO 2022-24			Planned 2021	Actual 2021
	2022	2023	2024		
- DP2 DS V (ROV & air diving system)	581	431	517	490	614
- DP2 DS V (built-in saturation dive)	330	137	164	161	243
- DP2 DS V (ROV intervention)	55	61	73	69	0
- DP2 DS V (ROV intervention)	581	431	517	490	614

Source: PETRONAS

Snapshot of the oil market in 2021

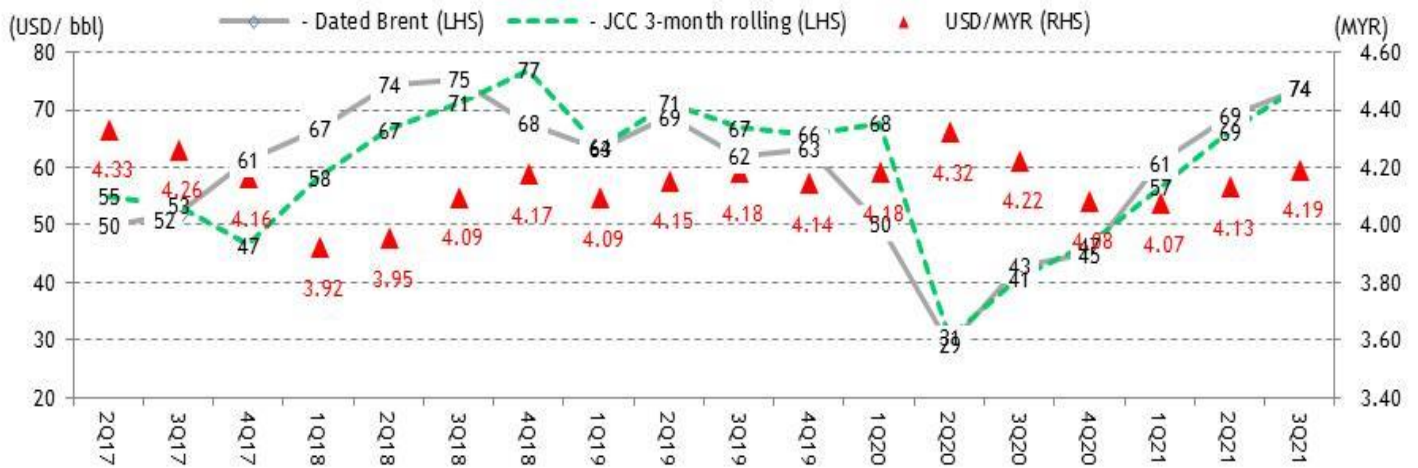
Daily Dated Brent Prices
Unit: USD/bbl

YTD 2021:
USD70.6/bbl



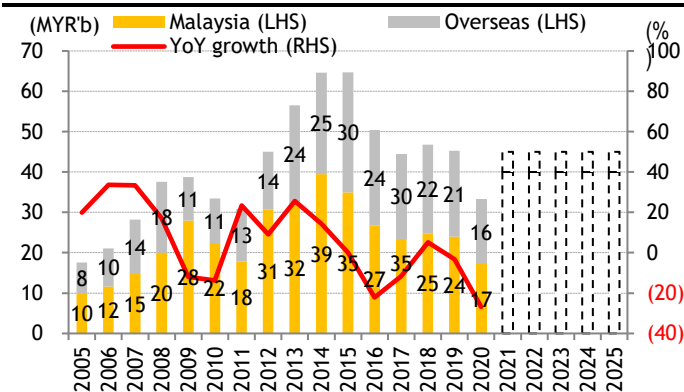
Source: PETRONAS, Argus

PETRONAS: Crude oil price and USD/MYR exchange rate



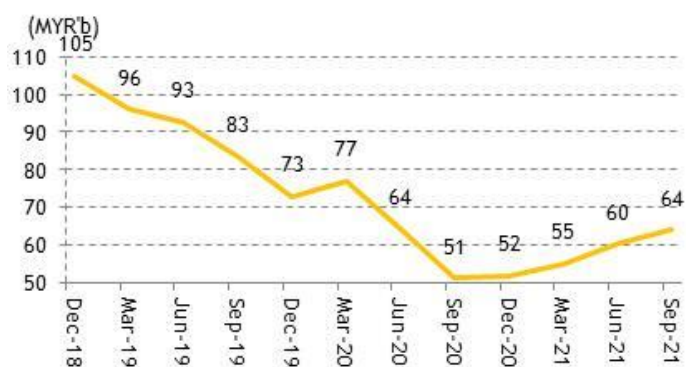
Source: PETRONAS

PETRONAS: Yearly CAPEX breakdown by region



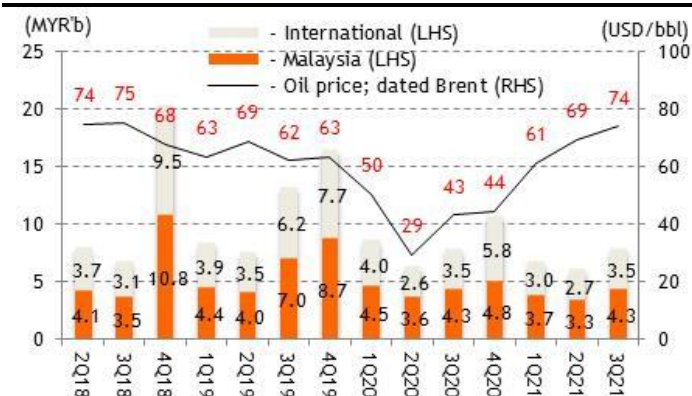
Note: *To allocate 55%:45% of capex for domestic: overseas ops
Source: PETRONAS

PETRONAS: Quarterly net cash



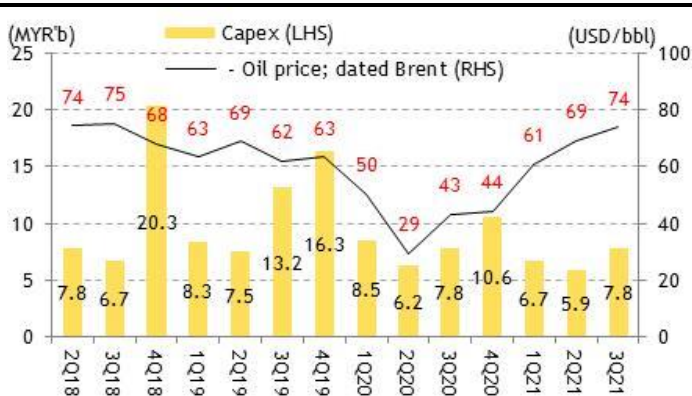
Source: PETRONAS

PETRONAS: Quarterly CAPEX breakdown by region



Source: PETRONAS ** Estimate: 3Q21 domestic:international ratio

PETRONAS: Quarterly CAPEX vs. crude oil price



Source: PETRONAS

PETRONAS: CAPEX breakdown by division

CAPEX	3Q19	4Q19	1Q20	2Q20	3Q20	1Q21	2Q21	3Q21
Total	28.9	16.3	8.5	6.2	7.8	10.6	6.7	7.8
- Upstream	13.3	9.8	4.8	3.0	3.0	3.4	2.6	4.3
- Gas & New Energy	5.8	1.9	1.6	1.3	2.0	2.7	1.5	1.3
- Downstream	7.5	2.4	1.1	0.7	1.6	1.6	0.8	1.1
- Corporates & others	2.3	2.2	1.0	1.2	1.2	2.9	1.8	1.0

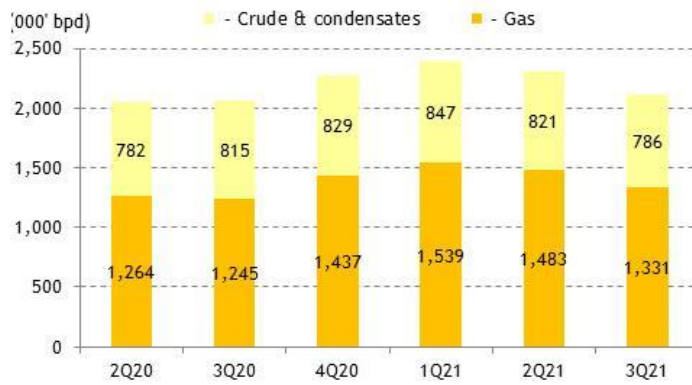
Source: PETRONAS

PETRONAS: Snippets of key financials

	9M19	FY19	3M20	6M20	9M20	FY20	3M21	6M21	9M21
- Gross cash (MYR'b)	147.3	141.6	144.3	156.9	141.4	140.3	148.3	166.9	171.0
- Gross debt (MYR'b)	63.9	68.7	67.1	92.5	90.1	88.2	93.3	106.6	107.0
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
- Net cash (MYR'b)	83.4	72.9	77.2	64.4	51.3	52.1	55.0	60.3	64.0
- Ope. Cashflow (MYR'b)	64.6	90.8	17.6	26.3	32.6	40.7	14.3	32.7	54.5
- Free cashflow (MYR'b)	35.7	45.5	9.2	11.6	10.1	7.6	7.7	20.1	34.1

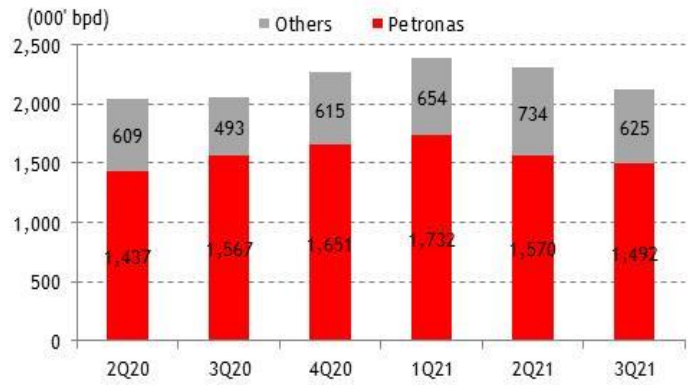
Source: PETRONAS

Operational performance: Production (kboe/d)



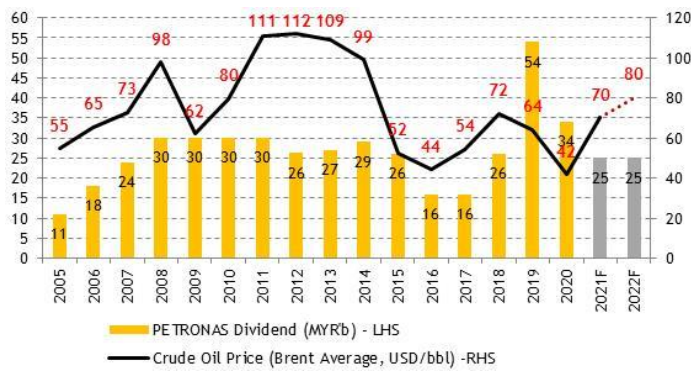
Source: PETRONAS

Operational performance: Entitlement (kboe/d)



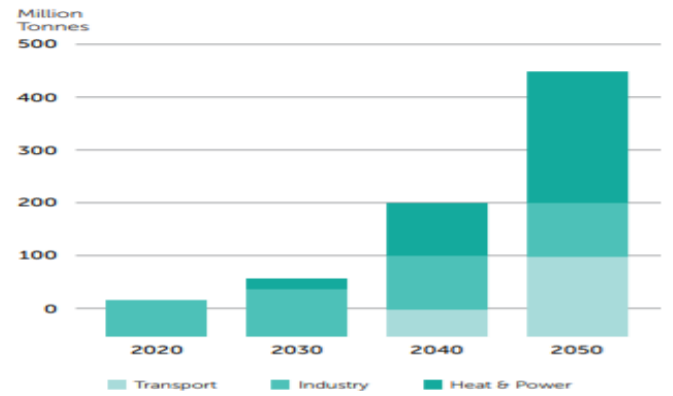
Source: PETRONAS

PETRONAS: Dividends vs. crude oil price



Note: *Special dividends: 2019: MYR30b/ 2020: MYR18b/ 2021: MYR7b
Source: PETRONAS

Global hydrogen demand forecast



Source: PETRONAS

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